REMARKS

Claims 21-40 remain pending in the present application. Reconsideration and allowance of all claims are respectfully requested.

Response to 35 U.S.C. §103 Rejection:

Claims 21-29, 31-34, and 36-40 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Zimmerman* (U.S. Patent No. 5,577,067) in view of *Dev et al.* (U.S. Patent No. 5,295,244). Claim 30 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Zimmerman* in view of *Dev et al.* and further in view of *Braun et al.* (U.S. Patent No. 4,685,065). Also, claim 35 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Zimmerman* in view of *Dev et al.* and further in view of Applicant's admitted prior art. Applicants respectfully traverse these rejections.

The Office Action seems to suggest that the term "amplifier," disclosed by *Zimmerman*, is a "node," as claimed. Applicants respectfully disagree with this interpretation and request that the Examiner provides evidence that would support the suggestion that an amplifier is a node. Moreover, Applicants request that the term "node" be interpreted according to its ordinary meaning in the art. Nevertheless, assuming for the sake of argument that an amplifier is a node, the prior art still fails to teach or suggest independent claims 21, 28, and 38, as discussed below.

Claims 21-27:

Independent claim 21 is reproduced below:

21. A monitoring system for monitoring a communication system, the communication system having at least a first group of nodes, each node of said first group having a plurality of channels, the monitoring system comprising:

a spectrum analyzer, ***the spectrum analyzer configured to test the channels of each node of said first group to obtain a plurality of channel parameters, the spectrum analyzer further configured to analyze the frequency spectrum of each node of said first group to obtain a plurality of node parameters***;

a data analyzer, ***the data analyzer configured to receive the channel parameters and node parameters from the spectrum analyzer, the data analyzer further configured to process the channel parameters and node parameters to***

obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results; and

a display device, ***the display device configured to display a test result selected from the group consisting of the channel test results, node test results, and group test results.***

(Emphasis added)

Applicants assert that *Zimmerman* fails to teach or suggest the above-highlighted features of claim 21. Also, *Dev et al.*, *Braun et al.*, and Applicants admitted prior art also fail to teach or suggest these features and fail to suggest a motivation to modify *Zimmerman*. Therefore, taken alone or in combination, the prior art fails to teach or suggest the highlighted features of claim 21.

It should be pointed out that *Zimmerman*, as a whole, is concerned with only one measurement -- the gain characteristic, described with respect to a frequency spectrum sweep, of a single amplifier within the entire communication network. This measured frequency response is compared to an ideal frequency response for that amplifier. From the comparison, adjustments can be made to that amplifier to balance the communication network. In contrast to claim 21, *Zimmerman* merely measures the frequency response of the one amplifier (node), from which CNR hum can be obtained (col. 5, line 9).

The prior art fails to teach or suggest a ***spectrum analyzer configured to test the channels of each node of said first group to obtain a plurality of channel parameters*** as claimed. *Zimmerman* fails to disclose testing channels of each node of a first group of nodes to obtain a plurality of channel parameters. The spectrum analysis of *Zimmerman*, at most, might be interpreted as the measurements of the amplitude of the channels of one amplifier (node) to obtain channel parameters for that one node. Although this reference might be interpreted as including this one measurement, i.e. amplitude, of the channels, the reference fails to test the channels of each node of said first group, as claimed. *Braun et al.* also fails to test channels of each node of said first group of nodes and therefore fails to overcome the deficiencies of *Zimmerman*. Also, *Dev et al.* is silent concerning testing channels, nodes, or groups of nodes.

The prior art also fails to teach or suggest ***the spectrum analyzer further configured to analyze the frequency spectrum of each node of said first group to obtain a plurality of node parameters***. *Zimmerman* fails to disclose analyzing the frequency spectrum of each node of a first group of nodes. Instead, *Zimmerman* appears to be concerned merely with the frequency spectrum of a single amplifier (node). The frequency analysis for the single amplifier is used quite adequately by *Zimmerman* to adjust the amplifier for balancing the system. There would therefore be no desirable reason to measure, nor is there any suggestion in the prior art to measure, the frequency response of more than one amplifier (node). The adjustment of the one amplifier only requires information regarding the ideal frequency response for that amplifier. Since it does not require knowledge of the frequency response of other amplifiers, there would not be any motivation to modify *Zimmerman* to analyze the frequency spectrum of each amplifier (node) of a group of amplifiers (nodes).

The prior art also fails to teach or suggest ***the data analyzer configured to receive the channel parameters and node parameters from the spectrum analyzer***. As mentioned above, channel parameters and node parameters, as defined in the claims, are not measured by the prior art. Therefore, the prior art fails to disclose a device that receives these parameters, especially since these parameters do not exist in the prior art. Even so, the prior art fails to teach or suggest a device that receives parameters measured at a node level and a channel level.

Even assuming, for the sake of argument, that the prior art teaches or suggests a device that receives these parameters, the prior art still fails to disclose a ***data analyzer further configured to process the channel parameters and node parameters to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results***. At most, *Zimmerman* analyzes the frequency response of one amplifier (node), processes this information by comparing the frequency response with an ideal response to obtain a delta graph (FIG. 4C). However, at best, this might be interpreted, in a broad manner, to read on obtaining a "plurality of node test results" only. However, *Zimmerman* still fails to teach a device that processes measured parameters to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results as claimed. *Braun et al.* likewise fails to obtain test results on a "channel" level, "node" level, and "group"

level. Also, *Dev et al.* is silent concerning measuring, processing, or obtaining parameters.

The prior art also fails to teach or suggest ***the display device configured to display a test result selected from the group consisting of the channel test results, node test results, and group test results***. Since the prior art fails to disclose the above-mentioned feature of obtaining channel test results, node test results, and group test results, it logically follows that the prior art also fails to disclose a display device configured to display a result selected from these test results. Although *Dev et al.* appears to display a network at different hierarchical levels, *Dev et al.* fails to disclose displaying a test result selected from the group consisting of channel test results, node test results, and group test results, as claimed. Instead, *Dev et al.* appears to disclose displaying a general view of geographical regions, buildings, and rooms of the network. *Dev et al.* fails to teach or suggest the display of test results. *Zimmerman* and *Braun et al.* also fail to teach or suggest displaying a test result selected from channel test results, node test results, or group test results.

Therefore, for at least the reasons discussed above, Applicants assert that claim 21 is allowable over the prior art of record. Also, claims 22-27 are believed to be allowable for at least the reason that they depend, directly or indirectly, from allowable independent claim 21. Therefore, withdrawal of the rejection is respectfully requested.

Claims 28-37:

Independent claim 28 is reproduced below:

28. A method for monitoring a communication system having at least one group of nodes, each node having a plurality of channels, the method comprising:

acquiring data obtained during a channel test and a spectrum scan test, the channel test configured to obtain channel parameters related to the channels of each node of a first group of nodes, the spectrum scan test configured to obtain node parameters of each node of the first group;

analyzing the acquired data to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results; and

controlling a display screen on a display device to display a test result selected from the group consisting of the channel test results, node test results, and group test results.

(Emphasis added)

Applicants assert that *Zimmerman*, *Dev et al.*, *Braun et al.*, and Applicants admitted prior art, taken alone or in combination, fail to teach or suggest the above-highlighted features of claim 28. Also, the prior art fails to suggest a motivation to modify *Zimmerman* as suggested in the Office Action.

The prior art fails to teach or suggest a ***channel test configured to obtain channel parameters related to the channels of each node of a first group of nodes*** as claimed. *Zimmerman* fails to disclose a test to obtain channel parameters related to the channels of each node of a first group of nodes. The spectrum analysis, at most, might be interpreted as channel measurements of one node to obtain channel parameters for that one node. Although this reference might be interpreted as including the measurement, i.e. amplitude, of the channels, the reference fails to test the channels of each node of a first group of nodes, as claimed. *Braun et al.* also fails to test channels of each node of said first group of nodes and therefore fails to overcome the deficiencies of *Zimmerman*. Also, *Dev et al.* is silent concerning testing channels, nodes, or groups of nodes.

The prior art also fails to teach or suggest a ***spectrum scan test configured to obtain node parameters of each node of the first group***. *Zimmerman* fails to disclose a spectrum scan test to obtain node parameters of each node of the first group of nodes. Instead, *Zimmerman* appears to be concerned with the frequency spectrum of a single amplifier (node). Since the frequency analysis for the single amplifier is used quite adequately by *Zimmerman* to adjust the amplifier for balancing the system, there would not be any desirable reason to measure, nor is there any suggestion in the prior art to measure, the frequency response of more than one amplifier (node). Since the adjustment of the single amplifier does not require knowledge of the frequency response of other amplifiers, but only the ideal frequency response of that amplifier, there would not be any motivation to modify *Zimmerman* to analyze the frequency spectrum of each amplifier (node) of a group of amplifiers (nodes).

The prior art also fails to teach or suggest ***acquiring data obtained during a channel test and a spectrum scan test***. As mentioned above, channel parameters and node parameters, as defined in the claims, are not measured by the prior art. Therefore, the prior art logically cannot acquire data obtained during a channel test and spectrum scan test since these tests are not run in the prior art. Even so, the prior art fails to teach or suggest acquiring data obtained during these tests at a node level and a channel level.

Even assuming, for the sake of argument, that the prior art teaches or suggests acquiring this data, the prior art still fails to disclose ***analyzing the acquired data to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results***. At most, *Zimmerman* analyzes the frequency response of one amplifier (node), processes this information by comparing the frequency response with an ideal response to obtain a delta graph (FIG. 4C). However, at best, this might be interpreted, in a broad sense, to read on obtaining a "plurality of node test results" only. However, *Zimmerman* still fails to teach a device that processes measured parameters to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results as claimed. *Braun et al.* likewise fails to obtain test results on a "channel" level, "node" level, and "group" level. Also, *Dev et al.* is silent concerning measuring, processing, or obtaining parameters.

The prior art also fails to teach or suggest ***controlling a display screen on a display device to display a test result selected from the group consisting of the channel test results, node test results, and group test results***. Since the prior art fails to disclose the above-mentioned feature of obtaining channel test results, node test results, and group test results, it logically follows that the prior art also fails to disclose controlling a display screen on a display device to display a result selected from these test results. Although *Dev et al.* appears to display a network at different hierarchical levels, *Dev et al.* fails to disclose displaying a test result selected from the group consisting of channel test results, node test results, and group test results, as claimed. Instead, *Dev et al.* appears to disclose displaying a general view of geographical regions, buildings, and rooms of the network. *Dev et al.* fails to teach or suggest the display of test results. *Zimmerman* and *Braun et al.* fail to teach or suggest displaying a test result selected from channel test results, node test results, or group test results.

Therefore, for at least the reasons discussed above, Applicants assert that claim 28 is allowable over the prior art of record. Also, claims 29-37 are believed to be allowable for at least the reason that they depend, directly or indirectly, from allowable independent claim 28. Therefore, withdrawal of the rejection is respectfully requested.

Claims 38-40:

Independent claim 38 is reproduced below:

38. Control process software for controlling a display screen of a display device, the control process software comprising:

logic configured to acquire data obtained during a channel test and a spectrum scan test of a communication system, the communication system having at least a first group of nodes, each node of the first group having a number of channels, wherein ***the channel test is configured to obtain channel parameters of the channels of each node of the first group of nodes, and the spectrum scan test is configured to obtain node parameters of each node of the first group***;

logic configured to analyze the acquired data to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results; and

logic configured to organize the channel test results, node test results, and group test results to display a test result selected from the group consisting of the channel test results, node test results, and group test results.

(Emphasis added)

Applicants assert that *Zimmerman* fails to teach or suggest the above-highlighted features of claim 38. Also, *Dev et al.*, *Braun et al.*, and Applicants admitted prior art also fail to teach or suggest these features and further fail to suggest a motivation to modify *Zimmerman*. Therefore, taken alone or in combination, the prior art fails to teach or suggest the highlighted features of claim 38.

The prior art fails to teach or suggest a ***channel test [that] is configured to obtain channel parameters of the channels of each node of the first group of nodes*** as claimed. *Zimmerman* fails to disclose obtaining channel parameters of the channels of each node of a first group of nodes. The spectrum analysis, at most, might be

interpreted as channel measurements of one node to obtain channel parameters for that one node. Although this reference might be interpreted as including the measurement, i.e. amplitude, of the channels, the reference fails to test the channels of each node of said first group, as claimed. *Braun et al.* also fails to test channels of each node of said first group of nodes and therefore fails to overcome the deficiencies of *Zimmerman*. Also, *Dev et al.* is silent concerning testing channels, nodes, or groups of nodes.

The prior art also fails to teach or suggest a ***spectrum scan test [that] is configured to obtain node parameters of each node of the first group***. *Zimmerman* fails to disclose analyzing the frequency spectrum of each node of the first group. Instead, *Zimmerman* appears to be concerned with the frequency spectrum of a single amplifier (node). Since the frequency analysis for the single amplifier is used quite adequately by *Zimmerman* to adjust the amplifier for balancing the system, there would not be any desirable reason to measure, nor is there any suggestion in the prior art to measure, the frequency response of more than one amplifier (node). Since the adjustment of the single amplifier does not require knowledge of the frequency response of other amplifiers, but only the ideal frequency response of that amplifier, there would not be any motivation to modify *Zimmerman* to analyze the frequency spectrum of each amplifier (node) of a group of amplifiers (nodes).

The prior art also fails to teach or suggest ***logic configured to acquire data obtained during a channel test and a spectrum scan test of a communication system***. As mentioned above, channel parameters and node parameters, as defined in the claims, are not measured by the prior art during a channel test and spectrum scan test. Therefore, there could be no logic configured to acquire these parameters, since they are lacking from the prior art. Even so, the prior art fails to teach or suggest logic that acquires data obtained during these tests at a node level and a channel level.

Even assuming, for the sake of argument, that the prior art teaches or suggests logic that obtains this data, the prior art still fails to disclose ***logic configured to analyze the acquired data to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results***. *Zimmerman* analyzes the frequency response of one amplifier (node), processes this information by comparing the frequency response with an ideal response to obtain a delta graph (FIG. 4C). However, at most, this might be interpreted, in a broad sense, to read on obtaining a

"plurality of node test results" only. However, *Zimmerman* still fails to teach logic that analyzes the acquired data to obtain a plurality of channel test results, a plurality of node test results, and a plurality of group test results as claimed. *Braun et al.* likewise fails to obtain test results on a "channel" level, "node" level, and "group" level. Also, *Dev et al.* is silent concerning measuring, processing, or obtaining parameters.

The prior art also fails to teach or suggest ***logic configured to organize the channel test results, node test results, and group test results to display a test result selected from the group consisting of the channel test results, node test results, and group test results***. Since the prior art fails to disclose the above-mentioned feature of obtaining channel test results, node test results, and group test results, it logically follows that the prior art also fails to disclose logic that organizes this information to display a test result selected from the channel, node, and group test results. Although *Dev et al.* appears to display a network at different hierarchical levels, *Dev et al.* fails to disclose displaying a test result selected from the group consisting of channel test results, node test results, and group test results, as claimed. Instead, *Dev et al.* appears to disclose displaying a general view of geographical regions, buildings, and rooms of the network. *Dev et al.* fails to teach or suggest the display of test results. *Zimmerman* and *Braun et al.* fail to teach or suggest displaying a test result selected from channel test results, node test results, or group test results.

Therefore, for at least the reasons discussed above, Applicants assert that claim 38 is allowable over the prior art of record. Also, claims 39 and 40 are believed to be allowable for at least the reason that they depend from allowable independent claim 38. Therefore, withdrawal of the rejection is respectfully requested.

"Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so." *ACS Hospital Systems, Inc., v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). In this case, *Zimmerman*, *Dev et al.*, and *Braun et al.* do not provide any teaching or suggestion that would warrant combining the references as the Examiner suggests.

CONCLUSION

Applicants respectfully submit that all rejections have been traversed and that pending claims 21-40 are in condition for allowance. Favorable reconsideration and allowance of the present application and pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date mentioned below.

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